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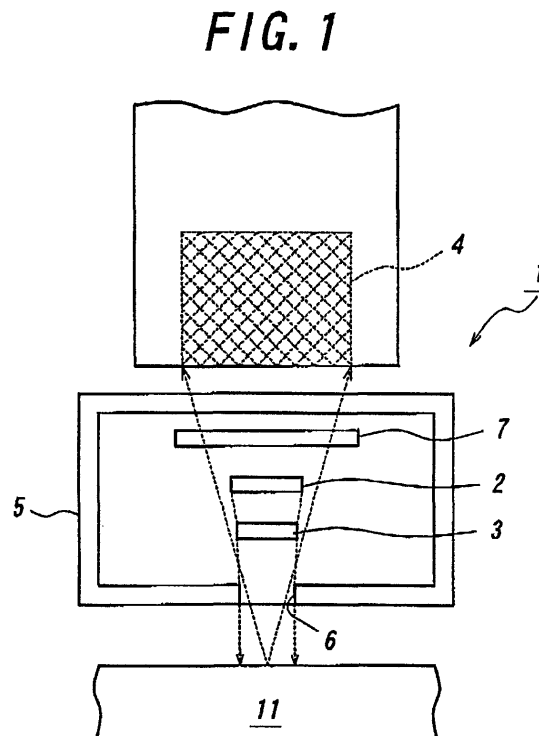
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(54) **Material defect evaluation apparatus and method measuring positron lifetimes**

(57) A material defect evaluation apparatus using positron for evaluating the degree of deterioration of a specimen by measuring a positron lifetime after irradiating positron to the specimen, includes: a positron source, a positron detector and a γ -ray detector, wherein, the positron source and the positron detector are arranged in a container through which a light is not transmitted, and, a positron transmitting window, through which positron emanating from the positron source and transmitting through the positron detector is transmitted outward, is arranged to the container.





European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 03 25 4124

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
X	BARBIERI A ET AL: "NONDESTRUCTIVE POSITRON-LIFETIME MEASUREMENTS DURING FATIGUE OF AUSTENITIC STAINLESS STEEL USING A MOBILE POSITRON BEAM" APPLIED PHYSICS LETTERS, AMERICAN INSTITUTE OF PHYSICS. NEW YORK, US, vol. 77, no. 12, 18 September 2000 (2000-09-18), pages 1911-1913, XP000964231 ISSN: 0003-6951 * page 1911, left-hand column - page 1913, left-hand column *	1-6	G01N23/22 G01N23/225 G01T1/16 G01T1/24
A	PATENT ABSTRACTS OF JAPAN vol. 2000, no. 21, 3 August 2001 (2001-08-03) & JP 2001 116706 A (JAPAN SCIENCE & TECHNOLOGY CORP;SHIRAI TAIJI; SUMITOMO KINZOKU TECHNOL), 27 April 2001 (2001-04-27) * abstract *	1-6	
A	PATENT ABSTRACTS OF JAPAN vol. 018, no. 078 (P-1689), 8 February 1994 (1994-02-08) & JP 05 288694 A (ISHIKAWAJIMA HARIMA HEAVY IND CO LTD), 2 November 1993 (1993-11-02) * abstract *	1-6	G01N G01T
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The present search report has been drawn up for all claims			
Place of search MUNICH		Date of completion of the search 2 March 2004	Examiner Huenges, A
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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**ANNEX TO THE EUROPEAN SEARCH REPORT
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EP 03 25 4124

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82